



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/600,207	06/19/2003	Darko Segota	11023.3	9028

7590 03/17/2005

Christopher L. Johnson
KIRTON & McCONKIE
Suite 1800
60 East South Temple
Salt Lake City, UT 84111

EXAMINER

ELDRED, JOHN W

ART UNIT PAPER NUMBER

3644

DATE MAILED: 03/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/600,207

Applicant(s)

SEGOTA ET AL

Examiner

J. Woodrow Eldred

Art Unit

3644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-58 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-58 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 09222003.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

DETAILED ACTION

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 8-10, 18, 19, 26-28, 30, 33, 36, 40, 41, 49-52, 57, and 58 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 8, the phrase “with varying design constraints, flow characteristics, ... and any combination of these” is vague and indefinite, since it is not clear what elements are being adjusted or what limits are being applied upon these adjustments. Also, claim 8 is indefinite since it is an incomplete sentence.

In claims 10, 28, and 51, “for effectuating vector positioning” is vague and indefinite since it is not clear what vectors are being positioned or how the positioning is being accomplished.

Claim 18 is indefinite since it is clearly an incomplete sentence.

In claims 19, 26, 33, 49, and 58, “the locations(s) about said surface” is vague and indefinite since the limitation is unclear as to how many locations are being defined and it is also unclear what limitation is implied by “about”. Also in these claims, “pressure gradient forward and aft of said fluid” is indefinite and apparently inaccurate, since the pressure difference would apparently have to be within the fluid itself and, thus, cannot be “forward and aft of said fluid”.

In claims 27 and 50, “consistently along the length of said pressure recovery drop, as well as inconsistently along the length of said pressure recovery drop” is vague and indefinite. It is unclear how the regulator can be varied both “consistently” and “inconsistently”, and it is also unclear what structural limitations are implied by “inconsistently.”

In claims 30 and 52, “an orthogonal design” is vague and indefinite, since it is not clear what elements are orthogonal.

Art Unit: 3644

In claims 36, 40, and 41, "both consistently and inconsistently" is vague and indefinite.

It is unclear how the regulator can be varied both "consistently" and "inconsistently", and it is also unclear what structural limitations are implied by "inconsistently."

In claim 57, line 18, "said deflector vane" has no antecedent basis in the claims.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-14, 16-22, 24-40, 42-45, 47-53, and 56-58 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Wells et al (5,505,409).

See especially column 3, lines 11-45 and column 4, lines 3-41. Note that without further structural distinctions, the disclosed fluid flow regulator is considered to read over the ffuser vane"

5. Claims 1-14, 16-22, 24-43, 45, 47-53, and 56-58 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Falco (5,133,519).

See especially column 3, lines 11-60, and Figures 1 and 4.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 54 or 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over either one of Wells et al or Falco.

Both Wells et al and Falco disclose a fluid flow regulator on the surface of an object comprising a plurality of steps that create low pressure areas and thus effect the fluid flow and drag upon the object. Wells et al and Falco each disclose the regulators being used upon a variety of object, and specifically mention the broad category of airfoils and wings for aircraft. See especially column 2, lines 18-19 of Wells et al and column 7, lines 17-19 of Falco. To employ the fluid flow regulators of either Wells et al or Falco on a particular airfoil of an aircraft, such as the claimed stabilizer or rudder, is considered to have been obvious to one having ordinary skill in the art, since this is merely applying the disclosed regulators to a particular type of airfoil or wing within the broadly disclosed category of intended use by Wells et al and Falco.

8. Claims 15, 23, 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wells et al in view of Occhipinti (5,540,406).

Wells et al is applied as above except that it fails to disclose that the flow regulators are removably attachable. Occhipinti teach that it is well known to use a removably attachable flow regulator on an airfoil. See especially Figures 6 and 8. Motivation to combine is the improved performance gained by being able to attach the flow regulator to existing airfoils, and to remove it if desired to save weight in exchange for performance. To employ the teachings of Occhipinti on the flow regulators of Wells et al and have a removably attachable flow regulator is considered to have been obvious to one having ordinary skill in the art.

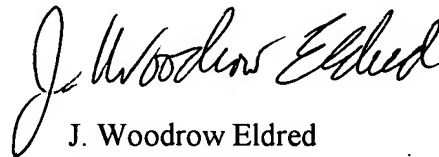
9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Radrizzani, Layukallo, McClure, Kirschner, Livingston, Bohning, and Lobert et al are cited as being of interest since they disclose airflow regulators.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Woodrow Eldred whose telephone number is 703-306-4151. The examiner can normally be reached on Monday to Thursday, from 8:00 a.m. to 5:30 p.m..

Art Unit: 3644

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teri Luu can be reached on 703-305-7421. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, reading "J. Woodrow Eldred". The signature is fluid and cursive, with the first letters of each word being capitalized and prominent.

J. Woodrow Eldred
Primary Examiner
Art Unit 3644

JWE